ABSTRACT

COMPARISON OF 24 HOUR URINARY PROTEIN AND URINARY DIPSTICK VS URINARY SPOT PROTEIN CREATININE RATIO IN PRE-ECLAMPSIA

OBJECTIVES:

To study the relationship between 24 hour urinary protein and random urinary spot protein creatinine ratio (PCR) in Pre eclampsia.

METHODS:

This study was conducted in 100 admitted antenatal cases of pre eclampsia with urinary dipstick value ≥ 1+. Urine sample for 24 hours followed by next morning random sample for urinary PCR was collected from all the patients.24 hour urinary protein ≥ 300 mg/24 hour or urinary Protein Creatinine Ratio ≥ 0.3 is taken as significant proteinuria. Measure of agreement tests (Kappa & Mc Nemar), Linear Regression and ROC Curve was used to determine the correlation between 24 hour urinary protein and urinary PCR.

RESULTS:

There was a significant linear correlation found between 24 hour urinary protein and spot urinary protein creatinine ratio. Measure of agreement tests McNemar = 1.000, Kappa statistics p= 0.968 show perfect agreement. Co efficient of determination r^2 =0.9571 which infers a very good correlation between 24 hr urinary protein and urinary PCR. ROC Curve = 1 which implies 100% accuracy for PCR significant group with respect to 24 hr urinary protein.The sensitivity and specificity of urinary PCR is 100% and 95% respectively with a diagnostic accuracy of 99%.

CONCLUSION:

The spot urinary protein creatinine ratio is a quick and reliable tool which can be used as an alternative method for evaluation of proteinuria in pre eclampsia. A level above 0.3 is a good indicator of significant proteinuria.

KEY WORDS:

Pre Eclampsia, Protein Creatinine Ratio (PCR), 24 hr Urinary Protein, Proteinuria.